ENRAF Series 854 Annulus Leak Detection Gauges Calibration and Maintenance

Tank Farm Maintenance Procedure **CALIBRATION**

USQ # N/A (Routine Maintenance)

CHANGE HISTORY (≤ LAST 5 REV-MODS)			
Rev-Mod	**Release Date**	**Justification**	**Summary of Changes**
D-0	01/21/2013	Periodic Review	Removed vague phrases, reformatted steps, reworded environmental statement, added clarification removed the 2 3/4-inch displacer from the procedure.
C-8	08/16/2012	Maintenance request.	Added Step 5.1.5.5
C-7	6/18/2012	Maintenance request to add equipment replacement instructions and additional clarification.	Struck Step 2.1, 2^{n} bullet under 4.1, 4.3.3, note after 5.1, 5.1.1, 5.1.4.1, 5.6.9, 5.6.16, 5.6.39, 5.6.46 – 5.6.47, 5.7.1, 5.7.9, 5.7.18, 5.7.32, 5.8.1.1, 5.8.8.2. Reworded 1.1, 1.2, Steps 5.1.3, 5.3.15, 5.4.4, 5.4.9, 5.4.12, 5.4.14, 5.4.20, 5.4.23, 5.4.24, 5.4.38, 5.5.8, 5.6.5, 5.6.16.1, 5.6.16.3, 5.6.17, 5.6.27, 5.6.31.2, 5.6.32, 5.6.42, 5.7.5, 5.7.6, 5.7.16, 5.7.21, 5.7.22, 5.7.28, 5.8.2, 5.8.9.6, reword note prior to 5.4.20. Added Step3.4.3, 4 bullets under 4.1, 2n & 3rd note under 5.0. Note and Steps, 5.1.4.2-5.1.4.9, 5.2.4, 5.5.2, Note and Steps, 5.5.3-5.5.3.2, 5.6.11, 5.6.15, 5.6.16.3, Steps 5.6.19-5.6.21, 5.6.23, 5.6.26, 5.6.29, 5.6.30, 5.6.34-5.6.36, 5.6.38, 5.6.42-5.6.43, 5.7.11, 5.7.14.3, 5.7.14.4, 5.7.18, 5.7.29, 5.7.32, 5.8.6-5.8.6.9, 5.8.7.4, 5.8.8, Section 5.9.

Next Periodic Review Date - 01/21/2015

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5.9 Leak Verification

Instrumentation Verification

NOTE - Instrument verification verifies if the instrument is broken or level is elevated by liquid.

Contamination Verification determines if liquid is radioactive or not. These Steps require presence of an HPT.

5.9.1 **CONNECT** pet to gauge to be tested.

5.9.2 **VERIFY** level value **AND**

RECORD _____.

5.9.3 **ENTER** command [I2], to change programmed mode.

5.9.4 **IF** level does not change from the previous alarmed value, **NOTIFY** Shift Manager that ENRAF is not operational and needs further maintenance.

5.9.5 **IF** value changes to a value less than value recorded in step 5.9.2 **NOTIFY** Shift Manager that there is liquid in the annulus **AND**

PROCEED.

Contamination Verification

NOTE - Presence of an HPT is required prior to performing the remaining steps in this section.

5.9.6 **ENSURE** an HPT is present to perform radiological monitoring.

WARNING

Failure to monitor for potential contamination on displacer could result in unnecessary personnel radiation exposure.

5.9.7 **ENTER** Command = [CA], to raise displacer.

5.9.8 **RAISE** displacer to sight glass **AND**

AS displacer rises to within approximately 50 to 75 inched of the sight glass, **REQUEST** the HPT to monitor exposure at riser.

5.9 Leak Verification (Cont.)

NOTE - In the following step, a count rate instrument is preferred.

5.9.9 **IF** radiation levels approach/exceed RWP Safe Condition Levels, **LOWER** displacer back into the annulus (by typing [UN] then <ENTER> on the PET).

5.9.9.1 **STOP WORK AND PLACE** personnel in a safe location.

5.9.9.2 **NOTIFY** Shift Manager and FWS, of potential leak.

5.9.10 **ENTER** command = [FR] when displacer is in sight glass.

5.9.11 **REQUEST** HPT to perform dose rate and contamination survey.

5.9.12 **REPORT** findings to a Shift Manager.

5.9.13 **ENTER** command [I1], to return to regular mode.

5.9.14 **ENTER** command [UN] **AND**

WAIT for displacer to stabilize as indicated by [INN] on display.

5.9.15 **RECORD** the level value _____.